

# LANDSCAPE WATERING GUIDELINES

Attractive landscapes add value to our homes, neighborhoods and communities. Whether you use rainwater or potable water, irrigating efficiently helps conserve both water and money. No matter the types of vegetation, landscapes are more resilient when watered properly. This Watering Guide provides landscape professionals and homeowners with a monthly watering schedule that incorporates local climate science and is based on University of Arizona research. Using this Watering Guide will improve your understanding of the water requirements for your landscape and help you achieve maximum efficiency for your monthly irrigation practices.

FOR MORE INFORMATION, INCLUDING PLANT WATER NEEDS: [www.tucsonaz.gov/water/landscape](http://www.tucsonaz.gov/water/landscape)

## HOW TO USE THIS WATERING SCHEDULE

- CHECK SOIL & PLANT TYPES**  
Soil type impacts watering needs. Sandy soils need watered more frequently than clay soils, but have shorter run times. Plant types also have different root depths and therefore different watering needs. Grass needs to be watered the most often, followed by shrubs and then trees. This is easier if you have different plant types in separate watering areas, known as hydrozones.
- EVALUATE CURRENT WATERING PRACTICES**  
How does your irrigation schedule compare to the guidelines? If you are unsure of your sprinkler type, use the guide to determine the type of watering system and devices you have on your property and build a watering schedule that fits your landscape.
- ADJUST & OBSERVE YOUR LANDSCAPE**  
Set your irrigation controller using the guidelines and rely on visual cues from the landscape and soil moisture to determine if your landscape is receiving sufficient water to thrive. Remember to Water by the Weather because plant water needs change monthly and water early, before daytime heat increases evaporation.

## WATERINGS PER MONTH

WATERING SHOULD BE EVENLY DISTRIBUTED THROUGHOUT THE MONTH.



Smartscape offers free, practical landscape water conservation classes for homeowners & professionals. Visit [PIMASMARTSCAPE.ORG](http://PIMASMARTSCAPE.ORG) or call 520-626-5161.

LOAMY SAND SOIL

SANDY LOAM SOIL\*

SILTY CLAY SOIL

PLANT TYPE	PRECIPITATION RATE & RUN TIME*	PLANT WATER USE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
			NUMBER OF WATERING DAYS PER MONTH (EVENLY DISTRIBUTED WATERINGS THROUGHOUT EACH MONTH)												
GRASS:	ROTOR: 28min • SPRAY: 14min		5	6	10	13	16	17	16	13	11	9	6	4	
		TREE:	Low	0	1	1	3	3	3	2	1	2	2	0	1
			Medium	1	1	3	4	5	6	4	4	3	3	1	1
SHRUBS:	DRIP: 2 GPH for 85min	High	1	3	4	7	9	10	6	6	5	5	2	2	
		TREE:	Low	0	1	3	3	5	5	3	2	3	2	1	1
			Medium	1	2	5	6	9	10	6	5	5	4	2	1
SHRUBS:	DRIP: 2 GPH for 57min	High	2	4	7	11	15	15	11	9	9	7	4	2	
		GRASS:	ROTOR: 15min • SPRAY: 7min	9	11	19	25	31	30	31	26	22	17	11	8
			TREE:	Low	1	2	2	2	4	4	2	2	2	1	1
Medium	1			1	4	5	6	7	5	4	3	4	1	1	
SHRUBS:	DRIP: 2 GPH for 80min	High	2	2	6	7	10	10	8	7	6	5	3	2	
		TREE:	Low	0	2	2	4	6	6	3	3	3	2	2	1
			Medium	1	3	5	7	11	10	7	6	5	5	3	1
SHRUBS:	DRIP: 2 GPH for 53min	High	3	4	8	13	15	16	13	11	9	8	5	3	
		GRASS:	ROTOR: 32min • SPRAY: 16min	4	5	9	11	14	15	14	12	10	8	5	4
			TREE:	Low	0	0	1	1	2	2	1	1	1	1	0
SHRUBS:	DRIP: 2 GPH for 198min	Medium		0	1	2	2	3	3	2	2	2	2	0	1
		High	1	1	2	2	4	5	4	3	3	3	1	1	
		SHRUBS:	Low	0	0	2	2	3	3	1	1	2	1	1	0
Medium	0		1	1	3	5	5	3	3	3	2	1	1		
SHRUBS:	DRIP: 2 GPH for 132min	High	1	2	4	5	8	7	6	5	5	3	2	2	

**YOUR WATERING CHART FOR GRASS AND DRIP IRRIGATION SYSTEMS** \*IF YOU ARE UNFAMILIAR WITH YOUR SOIL TYPE AND PLANTS' WATER NEEDS, WE SUGGEST THAT YOU BASE YOUR WATERING SCHEDULE ON SANDY LOAM SOIL (MIDDLE SECTION ABOVE) AND MEDIUM WATER USE PLANTS. DRIP SCHEDULE IS BASED ON ONE 2-GALLON PER HOUR (GPH) EMITTER PER PLANT, ROTOR IS BASED ON 0.75 IN/HR AND SPRAY IS BASED ON 1.5 IN/HR. IF DRIP EMITTERS HAVE HIGHER OR LOWER FLOW, RUN TIME MAY BE ADJUSTED LONGER OR SHORTER. THESE GUIDELINES ARE FOR ESTABLISHED PLANTS (1 YEAR FOR SHRUBS, 3 YEARS FOR TREES).

# DETERMINE YOUR TYPE OF SOIL

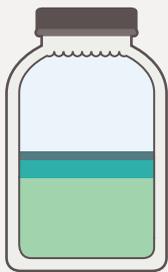
1. Fill a large, clear glass jar ½ full with soil.
2. Fill the remaining ½ with water, leaving 1" of air.
3. Attach lid securely & shake jar vigorously.
4. Set jar down and leave undisturbed overnight.
5. Measure total height of soil and height of each layer. Divide each layer height by total height of soil column and multiply by 100 to get % of each soil component.

SAND: \_\_\_\_\_ IN. X 100 = \_\_\_\_\_ % SAND

SILT: \_\_\_\_\_ IN. X 100 = \_\_\_\_\_ % SILT

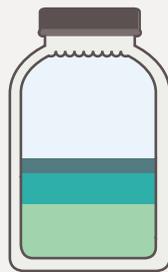
CLAY: \_\_\_\_\_ IN. X 100 = \_\_\_\_\_ % CLAY

LOAMY SAND



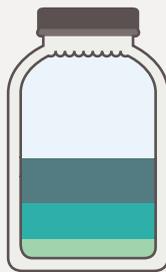
● 0-15% clay  
● 0-30% silt  
● 70-90% sand

SANDY LOAM



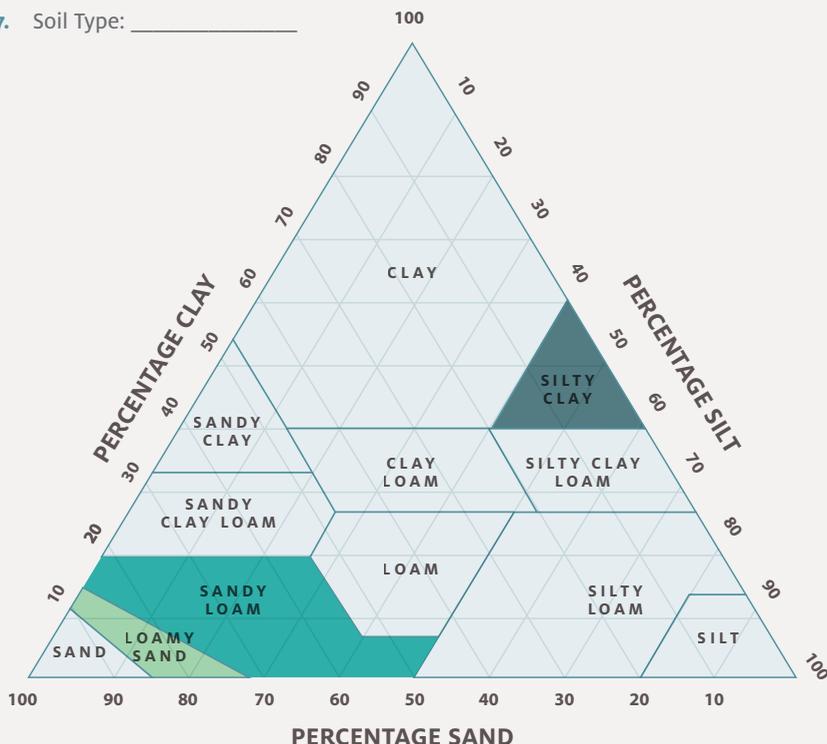
● 0-20% clay  
● 0-50% silt  
● 45-85% sand

SILTY CLAY



● 40-60% clay  
● 40-60% silt  
● 0-20% sand

6. Use the percentages calculated to determine which of the three soil type profiles above most closely matches your soil components. Or use the soil triangle below and plot the percentages from the jar to find your exact soil type.
7. Soil Type: \_\_\_\_\_



## IDENTIFYING WATERING SYSTEMS

Before you can customize a watering schedule, it's important to know what type of devices are applying water to your landscape. Sprinklers and drip emitters are the most common ways to irrigate Tucson landscapes and are described below.



Spray heads usually cover smaller turf areas, with a set watering rate. Spray heads have an even spray pattern. Watering rates range from 0.75 inches per hour to 2 inches per hour. This watering schedule is based on 1.5 inch per hour. Run time may need to be adjusted for your system.



Rotary heads usually cover larger turf areas, with variable watering rates. Rotary heads have a rotating or pulsing spray pattern. Watering rates range from 0.2 inches per hour to 1.0 inch per hour. This watering schedule is based on 0.75 inch per hour. Run time may need to be adjusted for your system.



Drip irrigation is the most common watering practice for xeriscape landscapes, including shrubs and trees. Drip emitters and microbubblers regulate flow in gallons per hour (gph) and range from 0.5-gph to 5-gph. Multiple emitters are added around one plant to provide even watering. This watering schedule is based on 2-gph.



Manual, non-permanent sprinklers and above-ground soaker hoses can be used with this watering schedule, but may require longer run times. Using an auto-timer with these watering devices helps prevent water waste.



FOR MORE INFORMATION

Email [pico@tucsonaz.gov](mailto:pico@tucsonaz.gov) or call 520.791.4331